

REMARKS

Claims 12-30 and 34-44 are pending in this application. Claims 12-30 and 34-44 are rejected. Claims 12, 14, and 22 are amended; and claim 15 is canceled hereby.

Responsive to the rejection of claim 22 under 35 U.S.C. § 112, first paragraph, Applicants have amended claim 22. Accordingly, Applicants submit that claim 22 is now in condition for allowance.

Responsive to the rejection of claims 12-30 and 34-44 under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 2,416,232 (Soday), to the rejection of claims 12-26, 34-36, 39-41, and 43-44 under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 6,027,615 (Davenport et al.), and to the rejection of claims 12-26, 30, 35-36, 39-41, and 43-44 under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 6,648,147 (Lydon et al.), Applicants have amended claim 12 to include the limitations of claim 15. Accordingly, Applicants submit that claim 12, and claims 13-14, 16-30, and 34-44 depending therefrom, are now in condition for allowance.

Soday discloses a product including an organic material, preferably absorbent, coated or impregnated with a butadiene resin applied in the form of an emulsion. The “organic material” includes various materials of the character of wood, pulp, paper, cardboard, textile fibres, both natural and synthetic, fabricated textile products made therefrom, burlap, felt. (Column 1, lines 34-38). Felted articles can be produced. (Column 2, lines 3-8).

Davenport et al. discloses a calender belt for the compliant calendering of a paper web which includes an endless base substrate, a staple fiber batt attached to at least the outside of the endless base substrate, and a polymeric resin material totally impregnating the fiber/base composite structure comprising the endless base substrate and the staple fiber batt to a substantially uniform depth. That depth may be such that the polymeric resin material does not reach the base substrate, or partly or completely impregnates the base substrate. A layer of

polymeric resin material is built up upon the staple fiber material to a predetermined thickness. Once the polymeric resin material is cured, it is ground to a desired smoothness without exposing any fiber on the ground surface. That the penetration of the polymeric resin material into the staple fiber batt, and possibly into the base substrate, is to a uniform depth enables the calender belt to provide a uniform pressure pulse as it passes with a paper web through the nip in a compliant calender. (Abstract).

Lydon et al. discloses a phase-separation member which comprises a porous substrate (11) containing void spaces, a microporous polymer material (14) which at least partially impregnates the porous substrate by entering into the void spaces, and a layer of a fluoropolymer applied to the outer face of the coagulated polymer material so that the layer (16) of fluoropolymer material remains predominantly at the surface. (Abstract).

In contrast, claim 12, as amended, recites in part “applying a dispersion of particulate polymeric material to a batt of fibres, thermally activating the dispersion of particulate polymeric material and thereby softening the particulate polymeric material such that the particulate polymeric material undergoes at least partial flow and fuses to itself and to the batt of fibres; wherein the activated dispersion of particulate polymeric material results in a layer which forms the surface of the industrial fabric and which includes the activated dispersion of particulate polymeric material extending vertically within the batt of fibres, the industrial fabric being a press felt of a papermaking machine, the layer being a discontinuous layer containing a mixture of batt fibres and a polymer-batt fibre matrix.” (Emphasis added). Applicant submits that such an invention is not taught, disclosed, or suggested by Soday, Davenport et al., and Lydon et al.

The Office Action at page 3 cites column 12, lines 15-37 of Soday to support heating above the softening point of the resin causing the particles to flow and weld. Soday discloses in column 12, lines 3-14 the option of removing the water at a temperature below the softening point

of the resin and that the organic material would then be covered by a film of the resin comprising discrete particles and further states that such a covering is advantageous for many purposes, since it is relatively pervious. However, this option does not include at least partially melting the particles. Soday then goes on to state that the “film comprising the discrete particles may be subsequently converted, if desired, into a continuous impervious film by heating the treated material above the softening point of the resin sufficient to cause the discrete particles to flow and weld together”. (Column 12, lines 15-20). The next two paragraphs in column 12 (lines 23-37) arguably relate to the option of melting the particles and thereby rendering the film impervious. Column 16, lines 9-13 of Soday also states that textile fibers, threads, and fabrics “are coated or impregnated to improve their ... water resistance”. Applicants submit that this does not contradict the above two options. Thus, Applicants submit that Soday does not disclose the layer being a discontinuous layer containing a mixture of batt fibres and a polymer-batt fibre matrix.

Applicants respectfully traverse the rejection of claim 12 in view of Davenport et al. The Office Action at page 4 corresponds the polymeric resin material in powder form of Davenport et al. with the dispersion of particulate polymeric material of the present invention. However, Applicants submit that, while the powder corresponds to particulates, the powder is not a dispersion of particulates. Rather, a dispersion is understood to include a liquid (or quasi-liquid) and particulates in the liquid (or quasi-liquid). (See examples in specification at page 6, lines 13-17). While Davenport et al. also states that “[t]he preceding coating techniques [the MTP technique, the SPS technique, and the powder coating technique] may also be used in any combination with one another”, Applicants submit that this should be interpreted to mean used with one another in sequence, not simultaneously.

Applicants respectfully traverse the rejection of claim 12 in view of Lydon et al. The Office Action at page 5 corresponds the coagulated polymer layer of Lydon et al. with the

dispersion of particulate polymeric material of the present invention. Lydon et al. discloses a substrate 41, which can be a fibrous nonwoven batt, which is impregnated with a coagulated polymer layer 42. A fluoropolymer coating 4r3 is applied to the coagulated polymer layer 42. (Column 4, lines 34-41; Fig. 4; see also Figs. 1-3 and 5). Lydon et al. discloses that the coagulatable polymer may have a “relatively high solids content” (column 2, lines 39-41), “may be applied to the substrate as the polymer is coagulating, for example using DMF in a 5-30% solids solution” (column 2, lines 45-48), and that coagulation may be achieved by heating the impregnated coated textile substrate in the presence of a heat coagulant. (Column 2, lines 50-51). Further, the “coagulatable or coagulating polymer may be applied by any coating technique such as knife coating, dip-coating, screen printing or spraying, padding or using reverse roller techniques”. (Column 2, lines 63-66). On the other hand, Lydon et al. discloses that the fluoropolymer coating can be applied to the outer surface of the coagulated polymer coated substrate as a particulate dispersion onto the receiving surface, and then the liquid component of the dispersion (which can be water) is removed (i.e., by evaporation pressing in a mangle). (Column 3, lines 1-8). Thus, Applicants submit, first, that the coagulation polymer is applied to the batt of fibers, and that the fluoropolymer is applied to the coagulation polymer, not to the batt of fibers. Although Lydon et al. refers to the “fluoropolymer used in coagulation or to coat the substrate after impregnation of the latter with the coagulated polymer”, Applicants submit that the context still indicates that the fluoropolymer layer is not disclosed as being applied to the batt, but only to the coagulation layer. Second, while the fluoropolymer coating is applied as a particulate dispersion and subsequently heated to remove the liquid component of the dispersion, Applicants submit that this process is not disclosed relative to the coagulated polymer. More specifically, Lydon et al. does not disclose that the solids of the coagulation polymer are melted so as to fuse to itself and to the batt of fibers.

For the foregoing reasons, Applicants submit that claim 12, and claims 13-14, 16-30, and 34-44 depending therefrom, are now in condition for allowance, which is hereby respectfully requested.

For the foregoing reasons, Applicants submit that the pending claims are definite and do particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Moreover, Applicants submit that no combination of the cited references teaches, discloses or suggests the subject matter of the amended claims. The pending claims are therefore in condition for allowance, and Applicants respectfully request withdrawal of all rejections and allowance of the claims.

In the event Applicants have overlooked the need for an extension of time, an additional extension of time, payment of fee, or additional payment of fee, Applicants hereby conditionally petition therefor and authorize that any charges be made to Deposit Account No. 20-0095, TAYLOR IP, P.C.

Should any question concerning any of the foregoing arise, the Examiner is invited to telephone the undersigned at (260) 897-3400.

Respectfully submitted,

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